CLAIMS

1. A winch for cargo tie-down straps to tie down straps comprising:
a winch frame having a frame securing segment and a pair of integrally extending flanges;
a winch drum rotatably mounted between said flanges;
a pawl and ratchet mechanism attached at a longitudinal end of said winch frame;
a fixed gear extending from an opposed longitudinal end of said winch drum;
a free gear extending axially from said fixed gear;
a worm gear mounted within a worm gear frame for driving a driving disc, said driving disc being adapted to selectively engage said fixed and free gears, depending on the positioning of said worm gear frame relative to a worm gear frame mounting assembly extending from said winch frame.

2. A winch for cargo tie-down straps having the following method of use:
when said winch is in its neutral configuration, said winch drum is freely rotated allowing manual tensioning of the tie-down strap;
once said tie-down strap is sufficiently manually tightened, said winch drum is locked using said pawl in conjunction with said ratchet wheel.

3. An independent tightening module to operate on a standard winch comprising:
a key stem configured and sized to interface with a lock found on a standard winch;
a "J" lock on said tightening module to engage the flange of said standard winch, a worm drive, a worm gear, and a bolt.

4. An independent tightening module to operate on a standard winch as in claim 3 wherein:
said key stem is configured polygonally and sized to interface with a polygonal lock welded onto a standard winch.

5. An independent tightening module to operate on a standard winch as in claim 3 and having a polygonal key stem wherein:
a circular key stem adaptor configured and sized to fit over said polygonal key stem and said circular key stem adaptor configured and sized for a circular lock;
said circular key stem adaptor having a key adaptor hole through which is inserted a pin passing through an existing lock hole.

6. An independent tightening module to operate on a standard winch as in claim 5 wherein:
said pin having a head and a body and said head being diametrically larger than said body so that said smaller body can fit through said circular key stem adaptor.

7. An independent tightening module to operate on a standard winch as in claim 4 having the following method of use:
Insertiing said circular key stem adaptor over said polygonal key stem;
inserting said circular key stem adaptor into said circular lock;
aligning said holes with a key adaptor hole;
inserting said pin into said key adaptor hole.

8. An independent tightening module to operate on a standard winch as in claim 3 having the following method of use on a standard winch:
said "J" lock engaging said flange of said standard winch and turning said bolt to bias said "J" lock (208) against said flange;
continuing turning of said bolt to tighten said strap;
turning said bolt in an opposite direction and turning said tightening module counterclockwise to release said "J" lock from said flange.